



More Groundwater Activities!

❖ Make a collection of rocks and soils important in Wisconsin's aquifers. Make a display for your school or local library.

❖ Visit the State Laboratory of Hygiene in Madison or a private water testing laboratory (list of certified laboratories available from your local DNR office). What water tests are done at the laboratory? How much do the tests cost? How often are public wells tested? What tests are run on public water supplies? How often should private wells be tested? What tests are normally run on private water supplies? When is water considered "contaminated?" When is water considered "unhealthy?"

Private well owners should have their water tested for nitrates and coliform bacteria once a year.

Schools also must have their water tested regularly. Find out how often your school's water is tested. Who collects the water? What tests are run? Obtain a copy of the most recent test results and discuss.

❖ Collect and send a sample of your school's water to the State Lab of Hygiene for nitrate and bacteria testing. Each test costs \$7.00 (total cost for bacteria and nitrates \$14.00). For sample materials and instructions write to:

State Lab of Hygiene

465 Henry Mall

Madison, Wisconsin 53706

❖ Research and report on methemoglobinemia (blue baby syndrome) caused by high levels of nitrate in drinking water.

❖ Interview someone who has had a contaminated well. How did she/he determine that the well was contaminated? With what was the well contaminated? What was the source of contamination? Was the problem solved? If so, how?

❖ Visit a beverage or food-processing industry. What is produced at the site? Is water used in the production? How? Where does the water come from? How does the company insure that the water used is of good quality? Is wastewater produced? If so, what does it contain? How is it disposed of?

❖ Investigate your home or school's use of lawn chemicals. What chemicals are used? What do they do for the lawn? How are they stored? How are excess chemicals disposed of? Where do chemicals placed on lawns go when it rains? What effects might the chemicals have if they get into groundwater? Are there any alternatives to using lawn chemicals?

❖ Invite the county Extension agricultural agent to speak to your class about the advantages and disadvantages of insecticide and herbicide use. How should pesticides be used? What can be done to decrease the amount of chemical applied to a field or garden? Are there any pesticide contamination problems in your county? If so, what is being done about them? Can farmers eliminate the use of pesticides?

❖ Interview someone who farmed before the time of widespread use of nitrogen fertilizers. Find out about yields, prices, profits, conservation practices and groundwater concerns.

❖ Invite an organic gardener or farmer to speak to your class. What is organic farming? What alternatives to pesticides are used? How are natural pest controls, such as insect predators and companion planting used? How does not using pesticides affect crop yield? Crop appearance? Crop sales?

❖ Research and report on water needs of various agricultural crops grown in Wisconsin. How are these water needs met? What are some ways to irrigate farmland? Which methods cause the greatest and the least water loss (though runoff and evaporation)? What is the relationship between pesticide use and irrigation practices on groundwater?

❖ Interview a person involved in the production or distribution of pesticides or fertilizer. Ask about use, disposal, health, pollution, etc.

❖ Using newspapers and magazines, research groundwater contamination by landfills and dumps. Where did the contamination happen? Who was affected? What were the health consequences? Were there economic consequences? How was the source of contamination determined? Who was responsible for clean-up? How much will clean-up cost?

❖ Demonstrate that groundwater provides the base flow for rivers and streams. Visit a stream in early fall or late spring. What is the temperature of the stream? Why is the stream cold? Has it rained or snowed recently? Do you see water running off the land? If not, where do you think the water for the stream comes from?

❖ Research and report on the potential environmental and health effects of placing disposable diapers in municipal landfills. Compare the cost of using cloth diapers and a diaper service to that of using disposable diapers.

❖ Find out what materials are used to make paper, plastic and glass. What happens to these materials in a landfill? What effects might these materials, if leached from a landfill, have on groundwater?

❖ Make a magazine photo display of environmentally safe products sold in non-polluting packaging.

❖ Organize or participate in a recycling project. Report on how the recycled materials are used.

❖ Invent and demonstrate new uses for product packaging that you would normally just throw away.

❖ Write a list of rules and guidelines for your home for handling, storing and disposing of household hazardous materials.

❖ Interview a person who operates a gas station or other business that uses underground storage tanks. What is kept in the tanks? Could this material be harmful if it got into groundwater? How often are the tanks checked for leaks? How does the owner know if the tanks develop a leak? What is done if the tanks leak?

❖ Make a poster showing how your family or school can conserve water.

❖ Make a display of newspaper clippings involving groundwater issues for your school or local library.

Adapted from: Groundwater Study Guide and Groundwater Resources and Educational Activities for Teaching.